

# IMAGE TO IMAGE TRANSLATION VIA MACHINE LEARNING



# Our Story.

## WHAT WE DO

Artificial intelligence and machine learning models

Custom web applications and software development

Simple, intuitive data visualizations and reports

## EXPERIENCE

Army AI Integration Center: Massive online big data and AI platform

Phase I and II SBIR/STTRs: Detecting adversarial manipulation of images

*How We Achieve Success*

## DIFFERENTIATORS

7 years in business with 6 Phase I and 2 Phase II SBIR/STTRs

HUBZone-certified small business

Coast-to-coast presence with client in Industry, Academia, Public Sectors

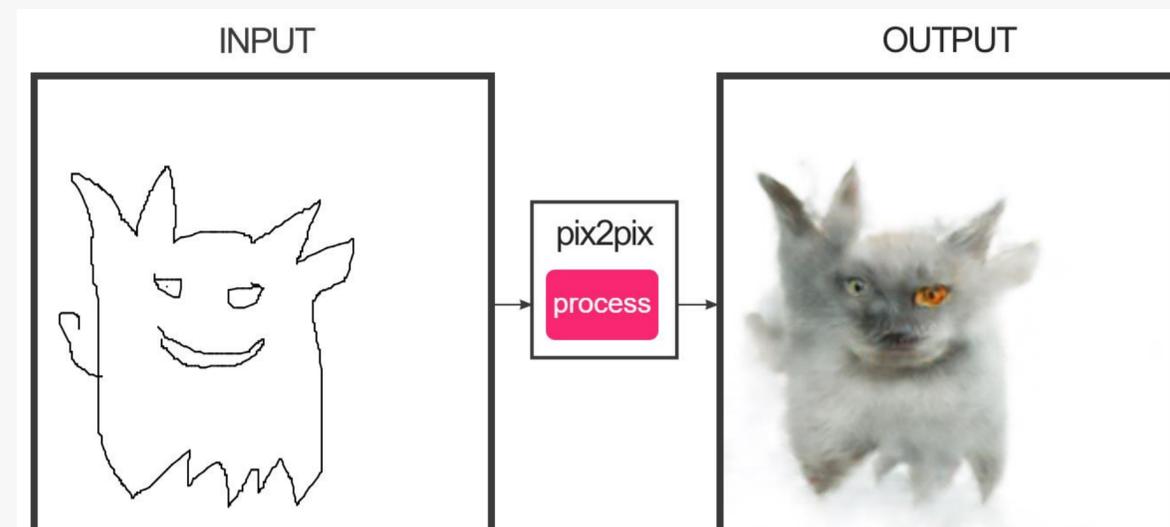
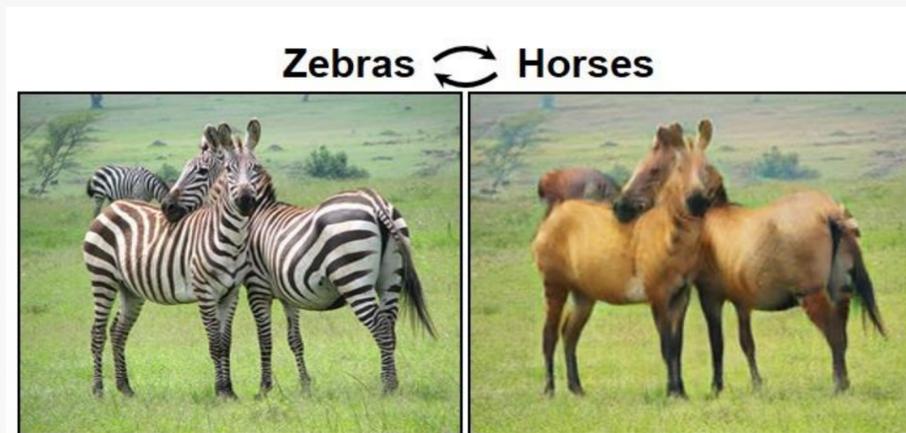
# Image to Image Translation



Satellite patch

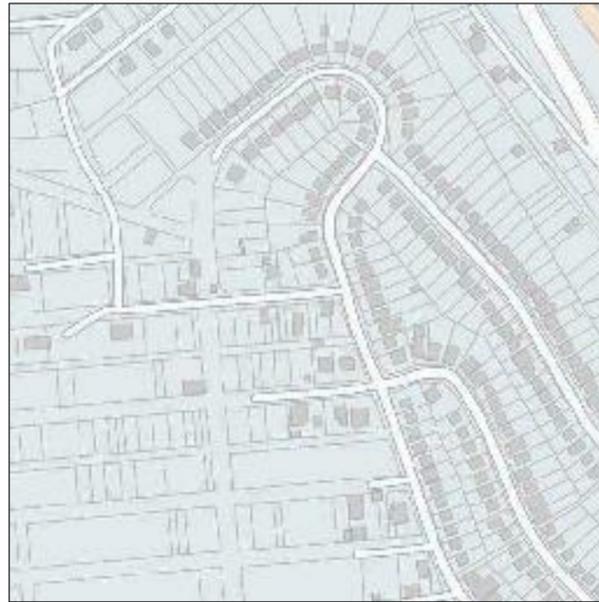


Predicted street-view panorama



## Air Force Phase II STTR

Map



Generated



True



### Map to Satellite Image Translation

Generate realistic satellite images based on maps

### Statistically Accurate Map Generation

You specify what buildings, vehicles, environments you want  
Our software determines the most accurate way to place them

### Adversarial Network Increases Realism

Discriminator network tries to tell between generated and true images  
Generator network tries to fool the discriminator

# WRIVA Use Cases

ORIGINAL IMAGE

NEW IMAGE

USE EXAMPLE

Map



Satellite



Training AI Algorithms  
Predicting Building Facade from  
Blueprint

Satellite



Map



Road Extraction & Route Planning

Satellite



Ground View



Predicting Locations of Doors and  
Windows

Daytime



Nighttime



Identifying Lit and Unlit Areas



# Contact Information

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